

BUILDING STANDARDS COMMISSION

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October 22, 2012

Jason Crapo, Deputy Director
Department of Conservation & Development
Building Inspection Division
County of Contra Costa
30 Muir Road
Martinez, CA 94553

Dear Mr. Crapo:

This letter is to acknowledge receipt on October 17, 2012 of the County of Contra Costa electronic submittal pertaining to Ordinance No. 2011-03 with findings and is acceptable for filing. Your filing attests to your understanding that according to Health and Safety Code §17958.7 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the findings and the modifications or changes have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing. As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published.

In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [Health and Safety Code Section 13869.7(c)], ATTENTION: State Housing Law Program Manager, rather than the Commission. Likewise, ordinances containing energy efficiency standards may require approval from the California Energy Commission pursuant to Public Resources Code Section 25402.1(h)(2).

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,

A handwritten signature in black ink, appearing to read "Enrique M. Rodriguez".

Enrique M. Rodriguez
Associate Construction Analyst

cc: Chron
Local Filings

SUMMARY OF CONTRA COSTA COUNTY ORDINANCE NO. 2011-03, LOCAL ADOPTION OF STATEWIDE BUILDING STANDARDS CODE

On February 15, 2011, in the Board Room, 651 Pine Street, Martinez, California, the Contra Costa County Board of Supervisors adopted Contra Costa County Ordinance No. 2011-03, summarized as follows. The California Building Standards Commission has adopted and published the 2010 Building Standards Code, which is comprised of the 2010 California Building, Residential, Green Building Standards, Electrical, Plumbing, and Mechanical codes. Ordinance No. 2011-03 adopts the 2010 California Building Code (Volume I & Volume II), the 2010 California Residential Code, the 2010 California Green Building Standards Code, the 2010 California Electrical Code, the 2010 California Plumbing Code, and the 2010 California Mechanical Code, with changes, additions and deletions that are necessary because of unique local conditions. Ordinance No. 2011-03 amends the statewide codes by requiring the installation of a smoke detector in existing flat roof buildings when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed. Ordinance No. 2011-03 amends the statewide codes by requiring most wood shakes or shingles used for exterior wall covering to be fire treated. Ordinance No. 2011-03 amends the statewide codes by increasing the minimum base shear in certain buildings to a level consistent with previous building codes. Ordinance No. 2011-03 modifies the statewide codes by requiring masonry foundation walls and concrete foundation walls of residential structures to comply with more restrictive seismic requirements. Ordinance No. 2011-03 was adopted by the following vote of the Board of Supervisors:

Ayes: 4

Noes: 0

Absent: 0

Abstain: 0

A certified copy of the full text of the adopted ordinance is posted in the office of the Clerk of the Board of Supervisors, 651 Pine Street, Martinez, California.

ORDINANCE NO. 2011-03

(Adoption of California Building Standards Codes)

The Contra Costa County Board of Supervisors ordains as follows (omitting the parenthetical footnotes from the official text of the enacted or amended provisions of the County Ordinance Code):

SECTION I. SUMMARY. This ordinance adopts the 2010 California Building Code, the 2010 California Residential Code, the 2010 California Green Building Standards Code, the 2010 California Electrical Code, the 2010 California Plumbing Code, and the 2010 California Mechanical Code, with changes, additions, and deletions.

SECTION II. Chapter 74-2 of the County Ordinance Code is amended to read:

**Chapter 74-2
ADOPTION**

74-2.002 Adoption.

- (a) The building code of this county is the 2010 California Building Code (California Code of Regulations, Title 24, Part 2, Volumes 1 and 2), the 2010 California Residential Code (California Code of Regulations, Title 24, Part 2.5), and the 2010 California Green Building Standards Code (California Code of Regulations, Title 24, Part 11), as amended by the changes, additions, and deletions set forth in this ordinance and Division 72.
- (b) The 2010 California Building Code, with the changes, additions, and deletions set forth in this chapter and Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (c) The 2010 California Residential Code, with the changes, additions, and deletions set forth in this chapter and Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (d) The 2010 California Green Building Standards Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (e) At least one copy of this building code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.
- (f) As of the effective date of this ordinance, the provisions of the building code are controlling

and enforceable within the county. (Ords. 2011-03 § 2, 2007-54 § 3, 2002-31 § 3, 99-17 § 5, 99-1, 90-100 § 5, 87-55 § 4, 80-14 § 5, 74-30.)

SECTION III. Chapter 74-4 of the County Ordinance Code is amended to read:

**Chapter 74-4
MODIFICATIONS**

74-4.002 Amendments to CBC. The 2010 California Building Code ("CBC") is amended by the changes, additions, and deletions set forth in this chapter and Division 72. Section numbers used below are those of the 2010 California Building Code.

(a) CBC Chapter 1 is amended by the provisions of Division 72 of this code and as follows:

- (1) Sections 103, 109, 112, 113, 114, and 116 of CBC Chapter 1 are deleted.
- (2) Section 105.2 (Work Exempt from Permit) of CBC Chapter 1 is amended to provide that a building permit is not required for the following work:

Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.

All other work listed in Section 105.2 of CBC Chapter 1 is also exempt from a permit.

- (3) Section 107.1 (Submittal Documents) of CBC Chapter 1 is amended by deleting the exception.
- (4) Section 107.2.1 (Information on Construction Documents) of CBC Chapter 1 is amended to read:

107.2.1. Plans and specifications shall be drawn to scale on substantial paper or cloth and shall be sufficient clarity to indicate the location, nature and extent of the work proposed and to show in detail that it will conform to this code and all relevant laws, ordinances, rules and regulations. The first sheet of each set of plans shall give the house and street address of the work and the name and address of the owner and of the person who prepared the plans. Plans shall include a plot plan showing the location of the lot corners as established on the ground, the elevation of the top and toe of cuts and fills, and the location of the proposed building and of every existing building on the property. Instead of detailed specifications, the county building official may approve references on the plans to a specific section or part of this code or other ordinances or laws.

ORDINANCE NO. 2011-03

Sections 107.2.2, 107.2.5, and 107.3 are not amended and remain in effect.

- (5) Section 110.1 (Inspections – General) is amended by adding the following to the end of the section:

At the time of first inspection by the county building official, property corners (including angle points) shall be identified with monuments in accordance with the legal description furnished with the application to build, sufficient to locate the proposed structure in relation to the lot lines, except that this requirement shall not apply to minor alterations or repairs to existing structures not affecting the exterior limits thereof, and construction of accessory buildings or structures of a building permit value of less than \$500. The plot plan required by Section 107.2.1 shall indicate the locations and identification of all property corner monuments. Property corner monuments shall consist of one of the following:

- (A) Redwood hub not less than two inches square and twelve inches long;
- (B) Galvanized iron pipe not less than one inch in diameter and thirty inches long filled with concrete; or
- (C) Other material of sufficient durability, placed as not to be readily disturbed, acceptable to the county building official.

Monuments shall be driven flush with the ground and tagged as required by the Land Surveyor Act (Business and Professions Code section 8772).

- (b) Section 907.2.11.5.1 is added to Section 907.2.11.5 (Existing Group R-3 Occupancies) of CBC Chapter 9 (Fire Protection Systems), to read:

907.2.11.5.1 In existing flat roof buildings, the installation of a smoke detector that complies with Section 907.2.10 shall be required when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed.

- (c) Section 1406.5 is added to Section 1406 (Combustible Materials on the Exterior Side of Exterior Walls) of CBC Chapter 14 (Exterior Walls), to read:

1406.5 Wood shakes or shingles. Wood shakes or shingles used for exterior wall covering shall be fire treated unless there is a minimum of 10 feet from the exterior wall (including shakes or shingles) to the property line of all sides, except for any sides of exterior walls facing the street.

- (d) Section 1615A.1.7 ASCE 7, Section 12.8.1.1 of CBC Chapter 1614A (Structural Design) is amended to read:

Section 1614A.1.7 ASCE 7, Section 12.8.1.1. Modify ASCE 7 Section 12.8.1.1 by amending Equation 12.8-5 as follows:

$$C_s = 0.044 S_{DS} I \geq 0.01 \quad (12.8-5)$$

where S_{DS} is the 5 percent damped design spectral response acceleration parameter at short periods as defined in Section 11.4.4 and I is the importance factor in Section 11.5.1.

- (e) Section 1809.8 (Plain Concrete Footings) of CBC Chapter 18 (Soils and Foundations) is deleted.
- (f) Section 1810.3.9.3 (Placement of reinforcement) of CBC Chapter 18 (Soils and Foundations) is amended by deleting Exception No. 3.
- (g) Section 1908.1 of CBC Chapter 19 (Concrete) is amended to read:

1908.1 General. The text of ACI 318 shall be modified as indicated in Sections 1908.1.1 through 1908.11.

- (h) Section 1909 (Structural Plain Concrete) of CBC Chapter 19 (Concrete) is deleted.
- (i) Section 1910.1 of CBC Chapter 19 (Concrete) is amended by adding the following sentence to Section 1910.1:

Slabs shall have six inches by six inches by ten gauge wire mesh or equal at midheight.

- (j) Appendix C, Appendix F, and Appendix I of the CBC are incorporated into the County building code. Appendix A, Appendix B, Appendix D, Appendix E, Appendix G, Appendix H, Appendix J, and Appendix K of the CBC are excluded from the County building code. (Ords. 2011-03 § 3, 2007-54 § 4, 2002-31 § 3, 99-17 § 6, 99-1, 90-100 § 6, 87-55 § 5, 80-14 § 6, 74-30 § 1.)

74-4.004 Amendments to CRC. The 2010 California Residential Code ("CRC") is amended by the changes, additions, and deletions set forth in this chapter and Division 72. Section numbers used below are those of the 2010 California Residential Code.

- (a) Sections R103, R108, R111, R112, R113, and R114 of CRC Chapter 1 are deleted.

- (b) In Section R105.2 of CRC Chapter 1, subsection 3 of the paragraph exempting certain building work from the requirement to obtain a permit is amended to exempt the following retaining walls from the requirement to obtain a permit:

3. Retaining walls that are not more than three feet in height, measured from the top of the footing to the top of the wall, unless supporting a surcharge or ground slope exceeding 1:2 or impounding class I, II, or III-a liquids.

- (c) Section R403.1.3 of CRC Chapter 4 is amended to delete the exception.

- (d) Section R404.1.4.1 of CRC Chapter 4 is amended to read:

R404.1.4.1 Masonry foundation walls. In addition to the requirements of Table R404.1.1(1), plain masonry walls in buildings assigned to Seismic Design Category D₀, D₁, or D₂ shall comply with the seismic requirements of Section 1.17.4.4 of TMS 402, ACI 530, or ASCE 5.

- (e) Section R404.1.4.2 of CRC Chapter 4 is amended to read:

Section R404.1.4.2 Concrete foundation walls. Concrete foundation walls in buildings assigned to Seismic Design Category D₀, D₁, or D₂ shall comply with ACI 318, ACI 332, or PCA 100.

(Ord. 2011-03 § 3.)

SECTION IV. Division 76 of the County Ordinance Code is amended to read:

**Division 76
ELECTRICAL CODE**

**Chapter 76-2
ADOPTION**

76-2.002 Adoption.

- (a) The electrical code of this county is the 2010 California Electrical Code (California Code of Regulations, Title 24, Part 3), as amended by the changes, additions, and deletions set forth in this ordinance.
- (b) The 2010 California Electrical Code, with the changes, additions, and deletions set forth in this division and Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (c) At least one copy of this electrical code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be

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complied with.

- (d) As of the effective date of this ordinance, the provisions of the electrical code are controlling and enforceable within the county. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

Chapter 76-4 MODIFICATIONS

76-4.002 Unlawful wiring, electric fences, warning.

- (a) Prohibition. Except as provided in subsection (b), a person may not construct or maintain any spring gun, or any electric wiring device, designated or intended to injure and/or shock animals or persons, or any contrivance or apparatus for that purpose.
- (b) Livestock Exception. Persons principally engaged in the business of handling livestock as a primary means of production or income may electrify fences to control or confine livestock upon complying with all the following requirements:
 - (1) Any contrivance or mechanism to control electrical current in such fences shall be listed by an approved testing laboratory, and shall include a suitable interrupting device and such other safety devices to prevent dangerous currents getting on the fence at any time.
 - (2) Any electrical fence to which the public may have access, except cross fences to confine and control livestock, shall be posted with a warning notice containing the following or similar wording: "DANGER. ELECTRIC FENCE," or "DANGER. HIGH VOLTAGE." This notice shall be posted along any such main fence at intervals of not more than 200 feet and in letters at least two inches high. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-57, 76-24.)

76-4.004 Boat docks. Whether open or roofed, lighting shall be provided to insure sufficient protective lighting at least two foot candles at all points for pedestrians on the docks, within covered berths, and on all walkways or ramps to shore and to the nearest access road within or adjacent to the harbor property. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

76-4.006 Power from generators.

- (a) All occupancies that have commercially supplied electricity shall connect to the commercial supplier.
- (b) Any occupancy that has commercially supplied electricity shall not use a permanent or temporary generator(s), provided that a generator(s) may be used for commercial purposes

when authorized by the county building official. (Ords. 2011-03 § 4, 2007-54 §5, 2005-32 § 2.)

76-4.008 Public nuisance lighting. Lighting fixtures shall be installed, controlled or directed so that the light will not glare or be blinding to pedestrians or vehicular traffic or on adjoining property. (Ords. 2011-03 § 4, 2007-54 § 5, 2002-31 § 4, 99-17 § 11, 89-60 § 2, 82-23 § 2, 79-67, 76-24.)

SECTION V. Division 78 of the County Ordinance Code is amended to read:

**Division 78
PLUMBING CODE**

**Chapter 78-2
ADOPTION**

78-2.002 Adoption.

- (a) The plumbing code of this county is the 2010 California Plumbing Code (California Code of Regulations, Title 24, Part 5), as amended by the changes, additions, and deletions set forth in this ordinance.
- (b) The 2010 California Plumbing Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (c) At least one copy of this plumbing code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.
- (d) As of the effective date of this ordinance, the provisions of the plumbing code are controlling and enforceable within the county. (Ords. 2011-03 § 5, 2007-54 § 6, 2002-31 § 5, 99-17 § 12, 74-29.)

SECTION VI. Division 710 of the County Ordinance Code is amended to read:

**Division 710
MECHANICAL CODE**

**Chapter 710-2
ADOPTION**

710-2.002 Adoption.

- (a) The mechanical code of this county is the 2010 California Mechanical Code (California

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Code of Regulations, Title 24, Part 4), as amended by the changes, additions, and deletions set forth in this ordinance.

- (b) The 2010 California Mechanical Code, with the changes, additions, and deletions set forth in Division 72, is adopted by this reference as though fully set forth in this ordinance.
- (c) At least one copy of this mechanical code is now on file with the building inspection division, and the other requirements of Government Code section 50022.6 have been and shall be complied with.
- (d) As of the effective date of this ordinance, the provisions of the mechanical code are controlling and enforceable within the county. (Ords. 2011-03 § 6, 2007-54 § 7, 2002-31 § 6, 99-17 § 13, 88-91 § 5, 74-31.)

SECTION VII. Chapter 74-8 of the County Ordinance Code is deleted.

SECTION VIII. Chapter 78-4 of the County Ordinance Code is deleted.

SECTION IX. EFFECTIVE DATE. This ordinance becomes effective 30 days after passage, and within 15 days after passage shall be published once with the names of supervisors voting for and against it in the Contra Costa Times, a newspaper published in this County.

PASSED on February 15, 2011, by the following vote:

AYES: Horia, Villanueva, Mitchoff, Glover
NOES: None
ABSENT: Piepho
ABSTAIN: None

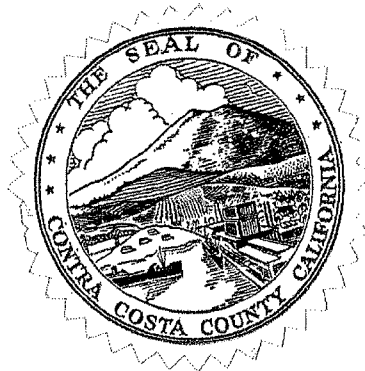
ATTEST: DAVID TWA,
Clerk of the Board of Supervisors
and County Administrator

David P. Villanueva
Board Chair

By: [Signature]

Deputy

TLG
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ORDINANCE NO. 2011-03

CONTRA COSTA COUNTY
FINDINGS IN SUPPORT OF CHANGES, ADDITIONS, AND DELETIONS TO
STATEWIDE BUILDING STANDARDS CODE

The California Building Standards Commission has adopted and published the 2010 Building Standards Code, which is comprised of the 2010 California Building, Residential, Green Building Standards, Electrical, Plumbing, and Mechanical codes. These codes are enforced in Contra Costa County by the Building Inspection Division of the Department of Conservation and Development.

Although these codes apply statewide, Health and Safety Code sections 17958.5 and 18941.5 authorize a local jurisdiction to modify or change these codes and establish more restrictive building standards if the jurisdiction finds that the modifications and changes are reasonably necessary because of local climatic, geological or topographical conditions.

Ordinance No. 2011-03 adopts the statewide codes and amends them to address local conditions. Pursuant to Health and Safety Code section 17958.7, the Contra Costa County Board of Supervisors finds that the more restrictive standards contained in Ordinance No. 2011-03 are reasonably necessary because of the local climatic, geological, and topographic conditions that are described below.

I. Local Conditions

A. Geological and Topographic

1. Seismicity

(a) Conditions

Contra Costa County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Contra Costa County is in close proximity to numerous earthquake faults including the San Andreas Fault and contains all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area.

A study released in 1990 by the United States Geological Survey says that there is a 67% chance of another earthquake the size of Loma Prieta during the next 30 years, and that the quake could strike at any time, including today. Scientists, therefore, believe that an earthquake of a magnitude 7 or larger is now twice as likely to happen as to not happen.

Interstates 680, 80, 580 and State Route 4 run the length throughout Contra Costa County. These interstates and state routes divide the County into a west, south, north and east. An overpass or undercrossing collapse would significantly alter the response route and time for responding emergency equipment. This is due to limited crossings of the interstate and that in some areas there is only one surface street, which runs parallel to the interstate, which would be congested during a significant emergency.

Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities and to gas and electrical lines in buildings, which in turn start fires throughout the County. The occurrence of multiple fires will quickly deplete existing fire department resources; thereby reducing and/or delaying their response to any given fire.

(b) Impact

A major earthquake could severely restrict the response of all Contra Costa County Fire Districts and their capability to control fires involving buildings of wood frame construction, with ordinary roofing materials and flammable exteriors, or with large interior areas not provided with automatic smoke and fire control systems. Also, when buildings not equipped with earthquake structural support move off their foundations, gas pipes may rupture. Fires develop from line ruptures and spread from house to house, causing an extreme demand for fire protection resources. The proximity of large areas within the County to fault traces, necessitates adopting stricter structural construction standards.

2. Soils

(a) Conditions

The area is replete with various soils, which are unstable, clay loam and alluvial fans being predominant. These soil conditions are

moderately to severely prone to swelling and shrinking, are plastic, and tend to liquefy.

Throughout Contra Costa County, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. The majority of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as down trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be unpassable so as to prevent fire protection resources from reaching fires caused by gas line ruptures or other sources.

3. Topographic

(a) Conditions

i. Vegetation

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six (6) to eight (8) months of each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout Contra Costa County, especially in those developed and developing areas of the County. Earthquake gas fires due to gas line ruptures can ignite grasslands and stress fire district resources.

ii. Surface Features

The arrangement and location of natural and manmade surface features, including hills, creeks, canals, freeways, housing tracts, commercial development, fire stations, streets and roads, combine to limit feasible response routes for Fire District resources in and to District areas.

iii. Buildings, Landscaping and Terrain

Many of the newer large buildings and building complexes

have building access and landscaping features and designs, which preclude or greatly limit any approach or operational access to them by Fire District vehicles. In addition, the presence of security gates and roads of inadequate width and grades that are too steep for Fire District vehicles adversely affect fire suppression efforts.

When Fire District vehicles cannot gain access to buildings involved with fire, the potential for complete loss is realized. Difficulty reaching a fire site often requires that fire personnel both in numbers and in stamina. Access problems often result in severely delaying, misdirecting or making impossible fire and smoke control efforts. In existing structures where pitch roofs have been built over an existing roof, smoke detectors should be required to warn residents of smoke and fire before the arrival of fire personnel.

(b) Impact

The above local geological and topographical conditions increase the magnitude, exposure, accessibility problems, and fire hazards presented to the County fire resources. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Most earthquake fires are created by natural gas developed from gas line ruptures. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwellings that were caused by broken gas lines.

Other variables may tend to intensify the situation:

1. The extent of damage to the water system
2. The extent of isolation due to bridge and/or freeway overpass collapse.
3. The extent of roadway damage and/or amount of debris blocking the roadways.
4. Climatic condition (hot, dry weather with high winds).
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours.
6. The availability of timely mutual aid or military assistance.
7. The large portion of dwellings with wood shake or shingle

coverings (both on the roof diaphragm and sides of the dwellings) could result in conflagrations.

8. The large number of dwellings that slip off their foundations and rupture gas lines and electrical systems resulting in further conflagrations.

B. Climatic

1. Precipitation and Relative Humidity

(a) Conditions

Precipitation ranges from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six (96) percent falls during the months of October through April and four (4) percent from May through September. This is a dry period of at least five (5) months each year. Additionally, the area is subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

(b) Impact

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Gas fires due to gas line ruptures can also spark and engulf a single family residence during these dry periods.

Because of dryness, a rapidly burning gas fire or exterior building fire can quickly transfer to other buildings by means of radiation or flying brands, sparks or embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the Fire District resulting in an excessive fire loss.

2. Temperature

(a) Conditions

Temperatures have been recorded as high as 114° F. Average summer

highs are in the 75° - 90° range, with average maximums of 105° F in some areas of unincorporated Contra Costa County.

(b) Impact

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building, wildland fires, and fires caused by gas line ruptures.

Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more fire resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the Fire Districts in Contra Costa County. The change of temperatures throughout the County between very low and extreme highs contributes to a voltage drop in conductors used for power pole lines. This necessitates that voltage drops be considered.

3. Winds

(a) Conditions

Prevailing winds in many parts of Contra Costa County are from the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities can reach fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty-five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days, creating extremely dry conditions.

(b) Impact

Winds such as those experienced locally can and do exacerbate fires, both interior and exterior, to burn and spread rapidly. Fires involving non-irrigated weeds, grass, brush, and fires caused by gas line ruptures can grow to a magnitude and be fanned to an intensity

beyond the control capabilities of the fire services very quickly even by relatively moderate winds. When such fires are not controlled; they can extend to nearby buildings, particularly those with untreated wood shakes or shingles.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by all Contra Costa County Fire Districts on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas, or lacking automatic fire protection systems, or lacking proper gas shut-off devices to shut off gas when pipes are ruptured, or lacking proper electrical systems. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

II. Necessity of More Restrictive Standards

Because of the conditions described above, the Contra Costa County Board of Supervisors finds that there are building and fire hazards unique to Contra Costa County that require the increased fire protection and structural and design load requirements set forth in Ordinance No. 2011-03. The ordinance amends the statewide codes by requiring the installation of a smoke detector in existing flat roof buildings when a pitch roof is added on top of the existing flat roof and the solid seating of the flat roof is not removed. (§ 74-4.002(b).) The ordinance amends the statewide codes by requiring most wood shakes or shingles used for exterior wall covering to be fire treated. (§ 74-4.002(c).) The ordinance amends the statewide codes by increasing the minimum base shear in certain buildings to a level consistent with previous building codes. (§ 74-4.002(d).) The ordinance modifies the statewide codes by requiring masonry foundation walls and concrete foundation walls of residential structures to comply with more restrictive seismic requirements. (§§ 74-4.004(d), 74-4.004(e).)

CBSC Administrative Status Report



Employee Information			
Employee Name:	Kevin Day		
Report Start Date:	10-17-2012	Report End Date:	10-24-2012
Current Working Projects/Classes		Due Date	Status
Rulemaking + SIDE PROJECT FOR MIA + E-ROD		10/17/12	Post/print/file all 2 nd 45-Day comments
Legislation		10/19/12	End of session checklist; 1-page abstract; legislative bulletin
Local amendment filings		As needed	Scan, post, data entry (some F/U)
Website		10/17/12	Post public comments; several lingering updates pending; local ordinance/posting training videos online
IT equipment & software application inventory		10/17/12	POs for Visio; Asset tags for laptops, cameras; Software compliance report
CSECC – 100% ASK		10/17/12	Draft email to Russ (due to KB/LP); collect pledge forms following silent auction
Short-Term Action Items		Due Date	Progress
Post Voter Registration Button		10/17/12	
IT Procurement			
Records Management		10/19/12	Transfer & destruction of documents at SRC.
Long-Term Goals		Due Date	Progress
"Study" for AGPA qualification exam		ASAP	Discuss w/Leann & Katrina
Accomplishments			
Concerns			

* Nov PLP

* Met w/ STEPH
- Comm. HANDBOOKS (DAY 2)?

[Handwritten signature]